

U.S. Fire Administration / National Fire Academy

# Coffee Break Training

## Topic: Means of Egress Illumination

**Learning objective:** The student shall be able to describe the minimum pathway lighting requirements for normal conditions.

The means of egress walking paths through a building must be illuminated at all times the building space served by that means of egress is occupied. The lighting requirements are intended to provide the minimum illumination needed for a person to navigate through a building under all conditions, so that person doesn't bump into objects or trip and fall over unseen obstructions.

Generally, the minimum required illumination in the means of egress is one foot-candle (or lux in SI units). Originally the "foot-candle" was the luminance at 1 foot from a standard candle, then at 1 foot from an international candle. It was then defined as the luminance produced by 1 lumen of "luminous flux" evenly distributed over a square foot. It is measured using a standard light meter employed for incident light measurement.

The major model codes have one major difference in the requirements for illumination of new stairs. The NFPA codes require new stairs to have not less than 10 foot-candles of illumination on the walking surface when the stairs are in use.

The following table summarizes the means of egress illumination requirements from the codes.

	<b>NFPA 1 and 101 foot-candle (lux)</b>	<b>IFC/IBC foot-candle (lux)</b>
<b>New stairs</b>	<b>10 (108)</b>	<b>1 (10.8)</b>
<b>Floors and walking surfaces, other than new stairs</b>	<b>1 (10.8)</b>	<b>1 (10.8)</b>
<b>Assembly occupancies during performances</b>	<b>0.2 (2.2)</b>	<b>0.2 (2.2)</b>

Remember that these requirements are for means of egress lighting during normal conditions. Emergency lighting requirements will differ.

For additional information, see NFPA 1, *Uniform Fire Code*<sup>™</sup>, Chapter 14; *International Fire Code*<sup>®</sup>, Chapter 10; or NFPA 101, *Life Safety Code*<sup>®</sup>, Chapter 7.

